Accelerate Learning STEMscopes Science TX Grade 1

Accelerate Learning STEMscopes Science TX Grade 1 Executive Summary

Section 1. Science-Related Texas Essential Knowledge and Skills (TEKS) and English Language Proficiency Standards (ELPS) Alignment

Grade	TEKS Student %	TEKS Teacher %	ELPS Student %	ELPS Teacher %
Grade K	100%	100%	100%	100%
Grade 1	100%	100%	100%	100%
Grade 2	100%	100%	100%	100%

Section 2. Instructional Anchor

- The materials are designed to strategically and systematically integrate scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS.
- The materials anchor the learning in phenomena and problems as the key lever for driving learning and student mastery of disciplinary knowledge and skills.

Section 3. Knowledge Coherence

- The materials are designed to build knowledge systematically, coherently, and accurately.
- The materials provide educative components to support teachers' content and coherence knowledge.

Section 4. Productive Struggle

- The materials provide opportunities for students to engage in productive struggle through sensemaking that involves reading, writing, thinking, and acting as scientists and engineers.

Section 5. Evidence-Based Reasoning and Communicating

- The materials promote students' use of evidence to develop, communicate, and evaluate explanations and solutions.
- The materials provide teacher guidance to support student reasoning and communication skills.

Section 6. Progress Monitoring

- The materials include a variety of TEKS-aligned and developmentally appropriate assessment tools.

Accelerate Learning STEMscopes Science TX Grade 1

- The materials include guidance that explains how to analyze and respond to data from assessment tools.
- The assessments are clear and easy to understand.

Section 7. Supports for All Learners

- The materials provide guidance on fostering connections between home and school.
- The materials include listening, reading, writing, and speaking supports to help Emergent Bilinguals meet grade-level science content expectations.
- The materials include a variety of research-based instructional methods that appeal to a variety of learning interests and needs.
- The materials include guidance, scaffolds, supports, and extensions that maximize student learning potential.

Section 8. Implementation Supports

- The materials include year-long plans with some practice and review opportunities that support instruction.
- The materials include classroom implementation support for teachers and administrators.
- The materials provide implementation guidance to meet variability in program design and scheduling.

Section 9. Design Features

- The visual design of materials is clear and easy to understand.
- The materials are mostly intentionally designed to engage and support student learning with the integration of digital technology.
- The digital technology or online components are developmentally and grade-level appropriate and provide support for learning.

Section 10. Additional Information

- The publisher submitted the technology, price, professional learning, and additional language supports.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 2.1

Materials are designed to strategically and systematically integrate scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS.

1	Materials provide multiple opportunities for students to develop, practice, and demonstrate mastery of grade-level appropriate scientific and engineering practices as outlined in the TEKS.	M
2	Materials provide multiple opportunities to make connections between and within overarching concepts using the recurring themes.	M
3	Materials strategically and systematically develop students' content knowledge and skills as appropriate for the concept and grade level as outlined in the TEKS.	M
4	Materials include sufficient opportunities, as outlined in the TEKS, for students to ask questions and plan and conduct classroom, laboratory, and field investigations and to engage in problem-solving to make connections across disciplines and develop an understanding of science concepts.	M

Meets | Score 4/4

The materials meet the criteria for this indicator. Materials are designed to strategically and systematically integrate scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS.

Materials provide multiple opportunities for students to develop, practice, and demonstrate mastery of grade-level appropriate scientific and engineering practices as outlined in the TEKS. Materials provide multiple opportunities to make connections between and within overarching concepts using the recurring themes. Material strategically and systematically develop students' content knowledge and skills as appropriate for the concept and grade level as outlined in the TEKS. Materials include sufficient opportunities as outlined in the TEKS, for students to ask questions and plan and conduct classroom, laboratory, and field investigations and to engage in problem-solving to make connections across disciplines and develop an understanding of science concepts.

Evidence includes but is not limited to:

Materials provide multiple opportunities for students to develop, practice, and demonstrate mastery of grade level appropriate scientific and engineering practices as outlined in the TEKS.

- The "Standards Planning" section of each scope includes a list of the scientific and engineering practices addressed in the scope. The Scope Matrix includes a "Scientific and Engineering Practices" section with more detailed information about where the SEPs appear within the lessons. For example, in the Soil unit, students have the opportunity to construct an explanation and support an argument that investigates and documents the properties of particle size, texture, and color of different types of soil.
- Throughout the year, students have multiple opportunities to ask questions and develop their understanding using a provided Interactive Science Notebook. In Lesson 1 of Scope 1, students draw and color an object in their notebooks and then practice making observations of the

objects as they engage in a problem-solving lab to classify objects using a balance to identify light or heavy objects.

- Each scope includes an opportunity for students to write a scientific explanation using the CER Framework to respond to a scenario. For example, in Lesson 1 of the Classify of Objects Unit, students learn to organize objects by shape, color, and texture. Students organize snack food by color, shape, and texture with a partner, then draw or write the classification method they used. Mastery can be checked using the Unit Assessment cards which ask students to identify physical properties of objects by shape, color, and texture. Each of the nine lessons in this Scope has the same CER activity. Students can get additional practice with the teacher as needed based on the results of the CER.

Materials provide multiple opportunities to make connections between and within overarching concepts using recurring themes.

- In each scope, the "Standards Planning" section lists the recurring themes and concepts (RTCs) addressed in the scope. Students make connections as the content in the scope progresses. Lessons 1-8 for the "Pushes and Pulls" unit include Mini-Lessons that provide multiple opportunities to make connections and to scaffold student understanding of the cause-and-effect relationship between forces and an object.
- Recurring themes such as patterns, cause and effect, scale, portion and quantity, systems, energy and matter, structure and function, and stability and change are included with Recurring Themes (RT) cards. The RT cards are used each time the same theme or concept is taught. The connections trigger previous learning. Each Recurring Theme card guides what students do, what it looks like in the classroom, critical vocabulary, discussion prompts, and teacher notes.
- The materials allow for multiple opportunities to teach and make connections between science concepts using the recurring themes. The materials give examples of how to adapt and integrate concepts into other subject areas, and they allow students the opportunity to explore more scientific experiences and real-world connections.

Materials strategically and systematically develop students' content knowledge and skills as appropriate for the concept and grade level as outlined in the TEKS.

- Each lesson includes Story Cards to introduce phenomena and give students an entry point to engage in the learning. The Story Cards tie each lesson together as students develop conceptual understanding within the allotted number of days. For example, the scope for the Seasons unit aligns with TEKS 1.9A (describe and predict the patterns of seasons of the year such as order of occurrence and changes in nature). In Lesson 1, the teacher uses the Story Card to have students discuss how nature changes during seasons. In Lesson 2, the Story Card guides students through how a tree changes during different seasons. This includes the introduction of patterns in nature. In Lesson 3, the Story Card guides students to make observations about winter. In Lesson 4, the Story Card prompts students to make observations about spring. In Lesson 5, the Story Card prompts students to make observations about summer. In Lesson 6, the Story Card prompts students to make observations about fall. In Lesson 7, the Story Card prompts students to describe what the characteristics are like in their favorite season.
- The materials allow students to develop content knowledge as they progress through the lesson's components, such as circle time, mini-lesson, and formative assessments. In Lesson 4 of the Soil unit, students discuss and compare types of soil, such as sand and topsoil, during the Mini-Lesson.

Accelerate Learning STEMscopes Science TX Grade 1

Materials include sufficient opportunities, as outlined in the TEKS, for students to ask questions and plan and conduct classroom, laboratory, and field investigations and to engage in problem solving to make connections across disciplines and develop an understanding of science concepts.

- All scopes include multiple lessons where students plan and conduct investigations that are centered around answering a question or questions. For example, in the “Changes from Heat” unit, students answer different questions to investigate how adding heat to ice cream affects it. "What change in the ice cream took place?" and "Can the change in their ice cream be reversed or not?" Also, students were asked, "Why is heat important to everyday life?”

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 2.2

Materials anchor the learning in phenomena and problems as the key lever for driving learning and student mastery of disciplinary knowledge and skills.

1	Materials embed phenomena and problems across lessons to support students in constructing, building, and developing knowledge through authentic application and performance of scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS.	M
2	Materials intentionally leverage students' prior knowledge and experiences related to phenomena and engineering problems.	M
3	Materials clearly outline for the teacher the scientific concepts and goals behind each phenomenon and engineering problem.	M

Meets | Score 4/4

The materials meet the criteria for this indicator. Materials anchor the learning in phenomena and problems as the key lever for driving learning and student mastery of disciplinary knowledge and skills.

Materials embed phenomena and problems across lessons to support students in constructing, building, and developing knowledge through authentic application and performance of scientific and engineering practices, recurring themes and concepts, and grade-level content as outlined in the TEKS. Materials intentionally leverage students' prior knowledge and experiences related to phenomena and engineering problems. Materials clearly outline for the teacher the scientific concepts and goals behind each phenomenon and engineering problem.

Evidence includes but is not limited to:

Materials embed phenomena and problems across lessons to support students in constructing, building, and developing knowledge through authentic application and performance of scientific and engineering practices, recurring themes and concepts, and grade level content as outlined in the TEKS.

- Each scope has multiple opportunities for students to use scientific and engineering practices as they engage in each scope. Students can ask questions, make observations, plan and conduct investigations, gather data, and write scientific explanations.
- All lessons in a scope start with a Mini-Lesson using Story Cards that help drive student conceptual understanding while embedding recurring themes and concepts (RTCs). The cards state that understanding phenomena starts with observing the world around us and that engineers ask questions, investigate, and record and analyze data. These cards are available in grades K-2, and the lessons align with the TEKS. One example includes a card where students describe and record observable characteristics or weather.
- Each lesson begins with the use of Story Cards as phenomena. The Story Cards give students a common entry point for learning. The Story Cards follow a "story" that connects all lessons in the scope together and drives students' conceptual development. Story Cards ask students to observe and discuss phenomena such as a pencil in water, a magnet attracting materials, and lighting coming from a storm cloud.

Accelerate Learning STEMscopes Science TX Grade 1

Materials intentionally leverage students' prior knowledge and experiences related to phenomena and engineering problems.

- Each lesson begins with the use of Story Cards as phenomena. The Story Cards give students a common entry point for learning. The Story Cards follow a "story" that connects all lessons in the scope together and drives students' conceptual development.
- The first lesson in each scope includes an "Accessing Prior Knowledge" section that engages students in an activity to access their prior knowledge/experiences related to phenomena or problem-solving. For example, in the "Animal Structures" unit, students look at pictures of four different animals and discuss the importance of each animal's covering.
- These resources are designed to allow for other opportunities to teach science concepts. They can be adapted and integrated into other subject areas, and they allow students the opportunity to explore more scientific experiences and real-world connections. This permits the students to use their experiences and make connections to prior knowledge. For example, the lesson on push and pull leads students to access prior knowledge and use what they know to build a sled they can push and pull.

Materials clearly outline for the teacher the scientific concepts and goals behind each phenomenon and engineering problem.

- Each scope outlines key concepts for teachers in the Engineering Connection description. For example, in Lesson 1, "Classifying Objects," the description focuses on the first five steps of the engineering design process to create a book showing events that happen in a recurrent pattern.
- Materials clearly outline the concepts and goals behind engineering problems, such as Classifying Objects, Lesson Plan 1, which outlines shape, color, and texture.
- The Standards Planning page provides an overview of student expectations for each scope. In all scopes, each lesson begins with using Story Cards as phenomena. The Story Cards follow a "story" that connects all lessons in the scope and drives students' conceptual development. Guiding questions are provided for each Story Card, along with the expected sample students' responses.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 3.1

Materials are designed to build knowledge systematically, coherently, and accurately.

1	Materials are vertically aligned and designed for students to build and connect their knowledge and skills within and across units and grade levels.	M
2	Materials are intentionally sequenced to scaffold learning in a way that allows for increasingly deeper conceptual understanding.	M
3	Materials clearly and accurately present grade-level-specific core concepts, recurring themes and concepts, and science and engineering practices.	M
4	Mastery requirements of the materials are within the boundaries of the main concepts of the grade level.	M

Meets | Score 6/6

The materials meet the criteria for the indicator. The materials are designed to systematically, coherently, and accurately build knowledge.

The materials are vertically aligned and designed for students to build and connect their knowledge and skills within and across units and grade levels. Materials are intentionally sequenced to scaffold learning in a way that allows for an increasingly deeper conceptual understanding. The materials clearly and accurately present grade-level specific core concepts, recurring themes and concepts, and science and engineering practices. Mastery requirements of the materials are within the boundaries of the main concepts of the grade level.

Evidence includes but is not limited to:

Materials are vertically aligned and designed for students to build and connect their knowledge and skills within and across units and grade levels.

- The materials include a Vertical Alignment of Science TEKS section with a "flashback" and "flash-forward" for each TEKS. The "flashback" informs teachers about what students learned in previous grade levels. The "fast-forward" informs teachers about what students will learn about the concept in future grade levels.
- The materials present content in a way that builds in complexity within and across units and grade levels. The materials help students connect new learning to previous and future learning. For example, each scope includes an Accessing Prior Knowledge (APK) section that teachers use to assess students' understanding of learning from the previous grade level. In the APK for Lesson 1 of the Living and Nonliving Unit, students take a nature walk to identify living and nonliving things. Students use knowledge about basic needs that is taught in kindergarten.

- The materials are designed to help students connect new learning to previous and future learning. The Standards Planning section for each unit lists the Vertical Alignment for each TEKS in the scope. The Soil unit for grade 1 states that in kindergarten, students study the properties of rocks then, in first grade, they study the properties of soil. In second grade, students build on this knowledge by investigating and describing how wind and water move soil and rock particles.
- The materials build from least complex to more complex within a grade level. For example, in grade 1, students classify objects by texture, flexibility, and temperature. Students demonstrate and explain that a whole object is a system of original parts within that same scope. Students explore this idea by taking a toy apart and looking at the individual parts that make the entire system. Later scopes, such as Animal Life Cycle, guide students to describe animal life, such as mammals and birds. Within that scope, students start by observing a life cycle and move to construct an argument that animals go through a life cycle in a predictable order that does not change.
- The materials are designed to help students connect new learning to previous and future learning. The Standards Planning section for each unit lists TEKS for the scope, as well as prior and future learning, to inform teachers about the knowledge students bring with them and the expectations for the next grade level. The lessons begin with Prior Knowledge Activation and work through a structured plan starting with circle time and centers to ensure understanding. One of the Centers activities suggested in the Scope for Seasons has students work with words associated with specific seasons. They put the words in ABC order and write sentences with these words.

Materials are intentionally sequenced to scaffold learning in a way that allows for an increasingly deeper conceptual understanding.

- The materials state the “curriculum is written to fully cover every science standard in each grade level. As the curriculum is built, lessons are ordered in the scope to help students truly construct an understanding of the content. Scopes are ordered to support the scaffolding of students' learning.” The lessons start with prior knowledge activation and work through a structured plan starting with Circle Time and centers to ensure understanding. In each scope, there is a succession of lessons that a teacher implements to scaffold student learning while taking them deeper into the content toward conceptual understanding. For example, in the first-grade unit for Bodies of Water, eight of the lessons start with Accessing Prior Knowledge. As each lesson continues, there are mini-lessons and activities that scaffold students to the rigor of the standard. In the last lesson, students apply what they know when they read a book to discuss the characteristics of different bodies of water, including puddles, ponds, streams, rivers, lakes, and oceans.
- Materials ensure students experience a phenomenon or problem before utilizing models as a tool for reasoning. For example, in the first-grade scope Changes to Heat, students interact with a Story Card that compares what happens to an icy pop in the sun and an icy pop in the shade. Students then take two bowls, each with an ice cube, to determine what will happen to the ice in the bowl when placed in the Sun and to the ice in the bowl in the shade.
- The materials include a progression of reasoning. Starting with concrete, representational, then abstract reasoning when presenting concepts allows for an increasingly deeper conceptual understanding.For example, in the first-grade scope for Pushes and Pulls, Lesson 3: You’re Pushing It!, students follow directions on the handout to move a marble and a crayon to see how they stop, start, and change direction and speed. As the students investigate, they record

data on how the marble and crayon change. Students then explain how the force of a push or pull affects the marble and crayon.

Materials clearly and accurately present grade level specific core concepts, recurring themes and concepts, and science and engineering practices.

- The materials accurately present core concepts. Materials are free from scientific inaccuracies across lessons, units, and grade levels. The materials present grade-level core concepts through TEKS-aligned lessons in each scope. The materials contain mini-lessons in each lesson plan to lead to deeper understanding. In the mini-lesson for the Seasons scope, students discuss patterns and how seasons follow a repeating pattern. Then, students look at and sort pictures of seasons.
- The materials accurately present recurring themes and concepts in the Recurring Theme Cards. The purpose of the cards is to help students deepen their understanding of concepts. The cards provide guidance on what students do, critical vocabulary, discussion prompts, and teacher notes. The cards are available in grades K-2.
- The materials present grade-level core concepts, recurring themes and concepts, and science and engineering practices. For example, the materials provide teachers with a Lesson Planning Guide that guides teachers as they lead science instruction. The Lesson Planning Guide includes an example lesson plan that provides teachers with a sample lesson plan that maps the scope in the 5E Instructional Model. This document also includes grade-level student learning objectives that show how the concept develops over time and what is expected from the students at each stage.

Mastery requirements of the materials are within the boundaries of the main concepts of the grade level.

- The materials present grade-level core concepts, recurring themes and concepts, and science and engineering practices. For example, the materials provide teachers with a Lesson Planning Guide that guides teachers as they lead science instruction. The Lesson Planning Guide includes an example lesson plan that provides teachers with a sample lesson plan that maps the scope in the 5E Instructional Model. This document also includes grade-level student learning objectives that show how the concept develops over time and what is expected from the students at each stage.
- The materials have a Claim Evidence and Reasoning Assessment section in which students exhibit mastery of a concept. For example, in the grade 1 Seasons scope, students read a scenario about different amounts of daylight in seasons. They draw and write an observation as to why this happens. This exercise meets grade-level expectations while staying within the boundaries as students are expected to describe and predict the patterns of seasons of the year, such as order of occurrence and changes in nature.
- In the assessment section of each scope, students demonstrate mastery when they write an explanation in Writing Science. In the first-grade unit for Natural Resources and Conservation, students look at pictures, think about how they connect to the science they have been learning, and write a response to explain how to protect and conserve water.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 3.2

Materials provide educational components to support teachers' content and knowledge coherence.

1	Materials support teachers in understanding the horizontal and vertical alignment guiding the development of grade-level content, recurring themes and concepts, and scientific and engineering practices.	M
2	Materials contain explanations and examples of science concepts, including grade-level misconceptions to support the teacher's subject knowledge and recognition of barriers to student conceptual development as outlined in the TEKS.	M
3	Materials explain the intent and purpose of the instructional design of the program.	M

Meets | Score 6/6

Materials meet the criteria for the indicator. Materials provide educative components to support teachers' content and knowledge coherence.

The materials provide educational components to support teachers' content and knowledge coherence. The materials support teachers in understanding the horizontal and vertical alignment guiding the development of grade-level content, recurring themes and concepts, and scientific and engineering practices (SEPs). Materials contain explanations and examples of science concepts, including grade-level misconceptions to support the teacher's subject knowledge and recognition of barriers to student conceptual development as outlined in the TEKS. The materials explain the intent and purpose of the instructional design of the program.

Evidence includes but is not limited to:

Materials support teachers in understanding the horizontal and vertical alignment guiding the development of grade level content, recurring themes and concepts, and scientific and engineering practices.

- The Standards Planning section of the scopes landing page includes the TEKS covered by the scope and an explanation of what students should have learned before the scope and what students are expected to learn in the next grade level. For example, in the Pushes and Pulls unit, the teacher materials inform the teacher that students study the effects of push and pull on an object's shape in first grade. In Kindergarten, students are expected to describe and predict how a magnet interacts with various materials and how magnets can be used to push or pull. In second grade, students explain how objects push on each other and may change shape when they touch or collide.

- The instructional materials include guiding documents that support teachers in understanding how new learning connects to previous and future learning across grade levels. For example, the materials include a vertical alignment section with a fast forward and flashback with TEKS for each scope.
- The materials include guiding documents that explain how content and concepts increase in depth and complexity across lessons and units within the grade level. In each scope, the succession of lessons supports the teacher in scaffolding student learning while taking them deeper into the content toward conceptual understanding. For example, the Soil unit for first grade explains that in kindergarten, students study the properties of rocks, and in first grade, they study the properties of soil. They build on this knowledge in second grade by investigating and describing how wind and water move soil and rock particles.

Materials contain explanations and examples of science concepts, including grade level misconceptions to support the teacher's subject knowledge and recognition of barriers to student conceptual development as outlined in the TEKS.

- The materials support the teacher's content knowledge. The materials provide background information for teachers and information about common grade-level misconceptions, with support for teachers in developing their understanding of more advanced grade-level concepts. In the scope for Seasons, the Teacher Background provides information about describing and predicting the patterns of the seasons. The materials support teachers in developing their understanding of more advanced, grade-level concepts.
- The materials include information for teachers about common grade-level misconceptions that hinder student conceptual development. The materials include a preconceptions section that informs teachers about misconceptions students may have as they enter the learning and provides guidance on how to address them. The materials guide the teacher to engage students in APK to assess their understanding. The guidance suggests that teachers keep the preconceptions uncovered during this Accessing Prior Knowledge (APK) in mind as they move through the scope. For example, in the Animal Life Cycles unit, students use APK to pre-assess their understanding. After this section, there are notes for the teacher in the section following, Preconceptions. The materials inform the teacher that: 1) Students may believe the life cycle is the same for every living thing; students should know that the life cycle of a mammal is different from the life cycle of a chicken or fish; 2) Students may believe the life cycle is over when an organism dies; students should know the life cycle begins again with the eggs that came from the organism that died, and 3) It is common for students to believe that the first stage of every animal life cycle is an egg; students should know that not all life cycles begin with an egg. Plants are living things; their life cycle begins with a seed, not an egg.
- The Teacher Background tab provides teacher guidance and information about the science content, examples of content, and common misconceptions. For example, in the Pushes and Pulls unit, guidance is provided that supports teachers in explaining how push and pull can start and stop motion and how push and pull can change the speed or direction of an object in motion.

Materials explain the intent and purpose of the instructional design of the program.

- The materials provide a purpose or rationale for the program’s instructional design. For example, the STEMscopes Framework includes an explanation of the STEMscopes Pedagogy. It states, "STEMscopes is a tightly and 100% TEKS aligned, online curriculum, which provides a

complete, coherent, and supported pathway for the academic success of students using an enhanced 5E instructional model."

- The materials provide a framework explaining the goal of the program. For example, the STEMscopes Pedagogy states, "It is the goal of STEMscopes to provide an inquiry-based curriculum, which incorporates the research-based, constructivist phases of the BSCS 5E Instructional Model (Bybee et al., 2006), the Key Findings from the National Research Council's report How People Learn (2000), the Texas Essential Knowledge and Skills (TEKS) (TEA, 2021), and an additional level of support for English Language Proficiency Standards (ELPS) (TEA, 2017)."
- The materials include a pedagogy section that explains the 5E model on which the lessons are based. The curriculum is inquiry-based. The lessons match the TEKS and include ELPS. Teachers are provided a sequenced pathway, resources, and support for meeting the needs of all students. This model supports the program's purpose by incorporating the 5E design in the structure of the lessons. For example, a phenomenon is introduced through the story cards to activate prior knowledge inviting students to ENGAGE. Students work through the skill introduced in the mini-lesson in a hands-on way to activate the EXPLORE. Students pair up with a partner to EXPLAIN what the new learning is. Students record their learning in the Interactive Science Notebook to ELABORATE on the learning. Lastly, during EVALUATE, teachers assess student understanding to inform instruction.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 4.1

Materials provide opportunities for students to engage in productive struggle through sensemaking that involves reading, writing, thinking, and acting as scientists and engineers.

1	Materials consistently support students' meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers.	M
2	Materials provide multiple opportunities for students to engage with grade-level appropriate scientific texts to gather evidence and develop an understanding of concepts.	M
3	Materials provide multiple opportunities for students to engage in various written and graphic modes of communication to support students in developing and displaying an understanding of scientific concepts.	M
4	Materials support students to act as scientists and engineers who can learn from engaging in phenomena and engineering design processes, make sense of concepts, and productively struggle.	M

Meets| Score 4/4

The materials meet the criteria for this indicator. Materials provide opportunities for students to engage in productive struggle through sensemaking that involves reading, writing, thinking, and acting as scientists and engineers.

The materials consistently support students' meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers. The materials provide multiple opportunities for students to engage with grade-level appropriate scientific texts to gather evidence and develop an understanding of concepts. They provide multiple opportunities for students to engage in various written and graphic modes of communication to support students in developing and displaying an understanding of scientific concepts. The materials support students to act as scientists and engineers who can learn from engaging phenomena and engineering design processes, make sense of concepts, and productively struggle.

Evidence includes but is not limited to:

Materials consistently support students' meaningful sensemaking through reading, writing, thinking, and acting as scientists and engineers.

- The materials support students' sensemaking through reading, writing, and thinking as scientists and engineers. For example, in the grade 1 scope Animals Structure, Lesson 2, the teacher gets students thinking using the Story Card scenario about three animals that observe a fish, a bird, and a puppy, then wonder how animals move around. Students discuss the scenario and how animals move around with a partner. Then, they watch a video about animal movement. Students then use their journals to read and write about different animal movements.
- The materials in each grade build on activities to help with sense-making. The steps in the lesson help close gaps and make sense of each topic. Each lesson starts with circle time, moves to the mini-lesson, and wraps up the mini-lesson. Then the students have activity time, word wall connections, and lastly, differentiation. Additionally, each scope has reading and writing activities embedded.

- The materials support students' sensemaking consistently. For example, in the scope for Changes from Heat, Lesson 1: Hot and Cold, students review the Story Card with examples of different things in a kitchen that feel hot and cold. Students then use their sense of touch to observe how room-temperature water becomes colder when put in a cooler and warmer when heated on a hot plate and how the water returns to room temperature when removed from the cooler or hot plate. Later in the same scope, in Lesson 3: Reversing Change, students review the Story Card, where butter is melted, and the character realizes it should be solid. The character tries to figure out how to turn the melted butter back into a solid. Students then melt a stick of butter and cool it so that it changes from a solid to a liquid and back to a solid, demonstrating that some changes caused by adding heat are reversible.

Materials provide multiple opportunities for students to engage with grade level appropriate scientific texts to gather evidence and develop an understanding of concepts.

- The materials provide opportunities for students to engage with scientific texts to develop their understanding of concepts. The materials include Leveled Readers and an Active Reader for each scope. Students use the readers to develop an understanding of concepts. For example, the Activer Reader for the Animal Life Cycles scope is called Animal Life Cycles. Students read about different animal life cycles and interact with the pages to write about the stages of the bird life cycle and identify and compare the different stages of a fish life cycle.
- The materials provide opportunities for students to use text to gather data and develop understanding. For example, in the unit for Seasons, there is an Active Reader (Seasons-Fun for All!) that students use to read and respond to prompts throughout the book. Examples of student activities are differentiated between clothes appropriate for Winter and Summer and use the physical properties of different trees to determine which season each represents.
- The materials provide opportunities for students to use text to gather data and develop understanding. For example, in the Bodies of Water Scope, Lesson 8: Water Detective, students listen to the book Water Detective and discuss the characteristics (color, clarity, size, shape, type of water, and ability to move material) of different bodies of water, including puddles, ponds, streams, rivers, lakes, and oceans.

Materials provide multiple opportunities for students to engage in various written and graphic modes of communication to support students in developing and displaying an understanding of scientific concepts.

- The materials provide opportunities for students to engage in graphic modes of communication to demonstrate an understanding of scientific concepts. For example, in the scope for Living and Nonliving, Lesson 5: That's My Baby, and I Don't Mean Maybe, students each draw and color a young animal and its parent. Then, in their Interactive Science Notebook, they complete a sentence stem to write about why animals produce offspring.
- The materials provide opportunities for written modes of communication to demonstrate understanding. For example, in the scope for Soil, students complete Claim-Evidence-Reasoning as they write an explanation to support an argument and document the properties of particle size, texture, and color of different soil types.
- Students engage in written and graphic communication when using their Interactive Science Notebooks. For example, in the scope on Weather, students draw a picture of a cloudy day and a clear day.

- The materials provide opportunities for students to engage in written modes of communication to support them in developing an understanding of science concepts. For example, the Natural Resources and Conservation Scope includes a writing center guide that guides teachers to require students to write vocabulary words about natural resources. critical vocabulary discussion prompts.

Materials support students to act as scientists and engineers who can learn from engaging in phenomena and engineering design processes, make sense of concepts, and productively struggle.

- Materials support students as they act like scientists and engineers. For example, in the Scope for Interdependency, in Engineering Connection, students focus on the first three steps of the Engineering Design Process (defining the problem, brainstorming, and planning) to design blueprints of terrariums that include interdependent living and nonliving components so a bearded dragon can survive in comfort. Another example where students think and act like engineers is in the Engineering Connection section of the Weather Scopescope for Weather. Students focus on the first five steps of the Engineering Design Process (defining the problem, brainstorming, planning, building, and testing) to design and build pinwheels that spin to indicate wind speed.
- Each scope includes an Engineering Connection where students are given an engineering challenge. They act as engineers as they work through the engineering design process to solve a problem. Each engineering challenge presents students with a problem, criteria, and constraints for solving it. Working within the criteria and constraints engages students in a productive struggle. For example, in the Changes From Heat Scope, the Engineering Connection challenges students to create a new crayon color and shape by adding and removing heat to crayons. Their designs must follow the criteria and constraints, which include: the new crayon must be a different and unique color, it must be a different and unique shape, students must be able to explain how they created the new crayon, students must use two or more existing crayons in their creation, and students must have adult assistance when adding and removing heat. By solving this engineering challenge, students can make sense of the concept of explaining and predicting changes in materials caused by heating and cooling.
- The materials provide opportunities for students to act like engineers and make sense of concepts by engaging in phenomena. For example, in Lesson 2, Push or Pull, students read and discuss an interactive card and play a game of Push or Pull. As they play, they ask, "Why is it sometimes difficult to tell if something is a push or a pull in the photograph? When you use a pencil to write, are you pushing or pulling?”
- The grade 1 lesson on seasons supports students to act as scientists and engineers who can learn from engaging in phenomena and engineering design processes, make sense of concepts, and productively struggle. This activity requires the students to focus on the first five steps of the Engineering Design Process (defining the problem, brainstorming, planning, building, and testing) to design and construct old-fashioned, free-standing paper dolls that can be dressed to reflect each season of the year. In this activity, the students will act as scientists and engineers as they define the problem, brainstorm, plan, build, and test their product. The students will be evaluated by using the Engineering Design Process Student Rubric.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 5.1

Materials promote students' use of evidence to develop, communicate, and evaluate explanations and solutions.

1	Materials prompt students to use evidence to support their hypotheses and claims.	M
2	Materials include embedded opportunities to develop and utilize scientific vocabulary in context.	M
3	Materials integrate argumentation and discourse throughout to support students' content knowledge and skills development as appropriate for the concept and grade level.	M
4	Materials provide opportunities for students to construct and present developmentally appropriate written and verbal arguments that justify explanations of phenomena and/or solutions to problems using evidence acquired from learning experiences.	M

Meets | Score 4/4

The materials meet the criteria for this indicator. The materials promote students' use of evidence to develop, communicate, and evaluate explanations and solutions.

The materials prompt students to use evidence to support their hypotheses and claims. The materials include embedded opportunities to develop and utilize scientific vocabulary in context. The materials integrate argumentation and discourse throughout to support students' content knowledge and skills development as appropriate for the concept and grade level. These materials provide opportunities for students to construct and present developmentally appropriate written and verbal arguments that justify explanations of phenomena and/or solutions to problems using evidence acquired from learning experiences.

Evidence includes but is not limited to:

Materials prompt students to use evidence to support their hypotheses and claims.

- The materials prompt students to use evidence to support their hypotheses and claims. For example, in the Scope for Seasons, students discuss different seasons, weather, and clothing. They describe what they see in pictures, such as snow, rain, or sun. They place weather-appropriate clothing near each season. Then students draw the weather and clothing associated with each season and check their claims by comparing them to the picture cards. The students support their claims that certain clothing pieces are weather appropriate by tracking the weather over time and monitoring what clothing people wear.
- The materials prompt students to use evidence to support the claim. For example, in the Scope for Pushes and Pulls, the teacher guides a discussion on changes and directs students to watch a video on Push. Students observe objects changing motion when pushed, such as an orange rolling across the table. Students complete the sentence, "When something is pushed, it will_____." The students experiment with pushing an orange and gather evidence to support that the orange will (or will not) move when pushed to either support or refute their claim that, "when something is pushed, it will _____."
- The materials prompt students to use evidence to support their hypotheses and claims. For example, in the Scope for Changes from Heat, Lesson 1: Hot or Cold, students predict what will

happen to water in the refrigerator and water on a hot plate. Students then test objects to determine if their prediction is correct or not. They record their findings and write an explanation using evidence to tell why the water becomes colder in the refrigerator and why the water becomes warmer on the hot plate.

- The materials prompt students to use evidence to support their hypotheses and claims. For example, in the Scope for Soil, students complete a Claim-Evidence-Reasoning to write an explanation to respond to a scenario using the evidence provided. The scenario prompts students to determine which soil is best for their friend for their flower seeds.

Materials include embedded opportunities to develop and utilize scientific vocabulary in context.

- The materials include opportunities to develop and use vocabulary after having a concrete or firsthand experience to help students contextualize new terms. For example, in the Scope for Interdependency, Lesson 1: My Survival, students learn that living things depend on living and nonliving things in their environment for survival. They observe an aquarium for this activity, and learn that this is called interdependence. Students explore and observe multiple representations of the vocabulary shown in the Vocabulary Cards. Students use the new vocabulary in their Interactive Science Notebooks when they draw and write three things they depend on in their daily lives.
- The materials include opportunities to develop and use vocabulary after having a concrete or firsthand experience to which they can contextualize new terms. For example, in the Scope for Animal Life Cycles, Lesson 1: What Stage Are You?, students learn about the life cycles of different organisms. They learn that humans have a life cycle, and so do mammals, birds, and fish. Students explore and observe multiple representations of the vocabulary shown in the Vocabulary Cards. Students can use the new vocabulary in their Interactive Science Notebooks when they draw a picture of themselves, a friend, or a family member and write which life cycle the person is in.
- The materials provide opportunities for students to use science vocabulary in context. For example, in the Scope for Seasons, students use words like snow, rain, and sun to describe what is happening in a picture. Then students draw a picture for each season and discuss using details about the weather to describe each image. Students share different weather conditions they have experienced using weather vocabulary terms such as wind, rain, and snow. Then students play a game by holding a weather-related card to their forehead. Their partner uses weather terms to describe the weather shown on the card. The student with the picture on their forehead guesses what is in the image by listening to the weather vocabulary describing the picture.

Materials integrate argumentation and discourse throughout to support students' content knowledge and skills development as appropriate for the concept and grade level.

- The materials integrate argumentation and discourse within stages of the learning cycle. For example, in the Scope for Pushes and Pulls, Lesson 5: Motion Scenarios, students construct an argument for their interpretation of the phenomena they observe during Circle Time. Materials provide instructional support, including guiding questions for the teacher to help students provide information about the phenomena. The materials direct students to include reasons or references as evidence.
- The materials provide opportunities for students to develop how to engage in regulated argumentation and discourse. For example, in the Scope for Weather, in the Engineering

Connection, students engage in argumentation and discourse as they engage in the Engineering Design Process to design and build pinwheels that spin to indicate wind speed. Students are expected to define the problem, brainstorm, plan, build, and test as a group. Teachers are provided with support for implementation during this process.

- The materials integrate argument and discourse throughout the lesson to support content knowledge. In the Scope for Changes from Heat, the teacher asks students why an ice cube would melt if left outside. The teacher asks students what could cause the changes in the ice cube. The materials include possible replies such as, "The air is warmer outside." Then, the teacher asks if the ice cube would refreeze when placed back in the freezer. The students discuss, and the teacher writes why the cube would refreeze or not. The ice cube is returned to the freezer for students to observe and discuss.

Materials provide opportunities for students to construct and present developmentally appropriate written and verbal arguments that justify explanations of phenomena and/or solutions to problems using evidence acquired from learning experiences.

- The materials provide criteria for developmentally appropriate arguments to explain a phenomenon or defend a solution to problems using evidence acquired from learning experiences. For example, in the Scope for Bodies of Water, as students complete the Claim-Evidence-Reasoning to write and support an argument for a scenario, they are provided with a rubric for the explanation.
- The materials provide an opportunity for students to justify explanations of phenomena and solutions to problems using written and verbal arguments using evidence from learning experiences. For example, in the Scope for Changes From Heat, students examine an ice cube and discuss reversing the change. "Can the ice cube melt and refreeze?" Students give a cause-and-effect account of why the cube would or would not refreeze. Then, discuss the cause of the melting and then refreezing.
- The materials provide criteria for developmentally appropriate arguments to explain a phenomenon or defend a solution to a problem using evidence acquired from the learning experience. All K-2 materials have a Claim-Evidence-Reasoning assessment for students to complete when a scope is finished. The students state their claim, provide evidence in writing, and give a reason for the claim. For example, in the Scope for Pushes and Pulls, students write a claim on why a push changes a soccer ball. Then they tell why this push causes a change and provide a drawing showing their thinking. The teacher assesses students after completion.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 5.2

Materials provide teacher guidance to support student reasoning and communication skills.

1	Materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking.	M
2	Materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context.	M
3	Materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims.	M
4	Materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions.	M

Meets | Score 4/4

The materials meet the criteria for this indicator. Materials provide teacher guidance to support student reasoning and communication skills.

The materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking. The materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context. The materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims. The materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions.

Evidence includes but is not limited to:

Materials provide teacher guidance on anticipating student responses and the use of questioning to deepen student thinking.

- The materials provide teachers with possible student responses to questions and tasks, as well as support for the teacher to deepen student thinking through questioning. For example, in the Scope for Weather, Lesson 5: Outside in the Cold, students view a video during Circle Time before investigating. The teacher materials provide questions to guide student thinking through the activity, as well as expected student responses to each question. Teachers ask the following questions: "Is it raining?" "Is it calm?" "Is it safe to go out in this storm?" "Is it windy?" "Is it cloudy?" and "Is the wind moving three trees and bushes?" Students are expected to respond with yes or no responses based on the evidence they see in the video.
- The materials provide teacher responses to possible students' responses, including how to build on students' thinking. For example, in the Scope for Pushes and Pulls, Lesson 4: Pull Some Strings, students engage with the Story Card during the Mini-Lesson to frame their thinking before they investigate. The teacher materials provide questions to guide and build on student thinking through the activity and possible student responses. Teachers ask students to think about what can happen to objects when pulled. The materials state that student responses may vary, but could include the following: An object could roll toward you, an object could slide toward you, an object could bounce toward you, or an object could stop moving away from you.

- The materials provide guidance on anticipating student responses and the use of questioning to deepen student thinking. For example, in the Scope for Soil, Lesson 6 Mini-Lesson: Which Soil is Thirsty?, the students experiment with three soil types to see which absorbs the most water and drains the most. The materials provide questions to help deepen student thinking. The teacher asks, ``Which soil absorbs the most water? How could you tell? Which soil absorbed the least water? How could you tell? Which soil absorbed neither the least nor the most water? How could you tell? What can be a problem with clay holding too much water?"
- Materials provide guidance on anticipating student responses and the use of questioning to deepen student thinking. For example, in the Scope for Classifying Objects, Lesson 4: How Does It Compare, students compare objects by size. After they have examined various objects, the teacher asks, "How did you determine which objects were larger and smaller than the object in the picture? What other method can you use to determine whether something is larger or smaller than something else?" The materials suggest that student answers may vary. Possible student responses could include: "We held the object next to the picture and saw whether it was larger or smaller, we can use rulers, or we can see how many paper clips long each object is."

Materials include teacher guidance on how to scaffold and support students' development and use of scientific vocabulary in context.

- The materials provide embedded support for the teacher on how to introduce and scaffold students' development of scientific vocabulary. For example, in the Scope for Soil, Lesson 1: Examining Soil, the activity, Word Wall with Wallace, the Wordy Wallace is used to introduce and scaffold new vocabulary with students and have students practice the use of the words in context. During this lesson, students learn the word *soil*. A vocabulary card with a picture and definition is included to review with students. There is also a Vocabulary Rap Video for Soil.
- The materials provide embedded support for the teacher in how to introduce and scaffold students' development of scientific vocabulary. For example, in the Scope for Animal Life Cycles, Lesson 1: What Stage Are You?, the activity, Word Wall with Wallace The Wordy Wallace introduces and scaffolds new vocabulary with students and has students practice using the words in context. During this lesson, students learn the words Life Cycle and Animal. There are vocabulary cards with pictures and definitions included to review with students. There are also Vocabulary Rap Videos for both terms.
- The materials include guidance on how to support the development of scientific vocabulary in context. For example, the Scope for Living and Nonliving provides word wall cards and a word wall video. In this lesson on *needs,* the teacher starts by naming living and nonliving things, such as a doll, toy car, or snake, and having the students stand for living things. Then the discussion turns to the needs of living things. The teacher explains that living things need food and water to stay alive. The teacher asks, "What would happen if basic needs are not met?" Possible answers include "living things would not stay alive." The scaffolding lesson has pictures of living and nonliving things. The students identify each image by telling if the photo shows a living or nonliving thing and identifying it as such by the need for food and water.

Accelerate Learning STEMscopes Science TX Grade 1

Materials provide teacher guidance on preparing for student discourse and supporting students in using evidence to construct written and verbal claims.

- The materials provide teacher support to prepare for student discourse by providing opportunities for students to practice sharing, listening to, and evaluating whether they agree with one another's ideas. For example, in the Scope for Bodies of Water, Lesson 1: Where's the Water?, the students engage in an activity where they listen to phrases and move to the image they feel represents the phrase. They then explain their thoughts and reasoning.
- The materials provide teacher questions for supporting student discourse and using evidence in constructing written and verbal claims. During each lesson, in the Wrap-up, students discuss the evidence they collected during an investigation. For example, in the Scope for Seasons, Lesson 5: Feeling the Heat!, students discuss what they learned about nature during the summer. The activity closes with the students completing a sheet for their Interactive Science Notebook to draw and color a background to show nature in the summer.
- The materials provide guidance that teachers can use to give feedback to students while engaging in discourse. For example, in the Scope for Natural Resources and Conservation, as students complete the Claim-Evidence-Reasoning response, the rubric provides teacher guidance on giving students feedback. Also, on the landing page for Claim-Evidence-Reasoning, in the Activity section, it offers possible responses for students based on their performance during the activity.
- The materials provide guidance on preparing the teacher for classroom student discourse. "Exploring as Scientist and Engineers" is a document that gives steps into students' discourse for the teacher to follow. The steps include observing the world around us and then asking questions. As students work through a skill, the materials instruct the teacher to start by asking questions and then having students talk about when and where the question can be answered. The students work with classmates to practice listening and then talking.
- The materials support teachers in asking questions and supporting students in making verbal and written claims. For example, in the Scope for Animal Life Cycles, the teacher asks questions about a juvenile fish and invites students to describe what it looks like. Then the students describe each life cycle stage and explain how it differs from the stage before and after. Then students draw and discuss a fish life cycle by naming each stage and talking about the change at each step of the cycle.

Materials support and guide teachers in facilitating the sharing of students' thinking and finding solutions.

- The materials provide teacher support and guidance to engage students' thinking in various modes of communication throughout the year. For example, in the Scope for Pushes and Pulls, Lesson 5: Motion Scenarios, the teacher ask students guiding questions to preview what they will do for the upcoming activity as they read a scenario and determine if a push, pull, start, stop, change direction or change speed occurred in the scenario. Then, students complete the activity in a group. The teacher asks, "What was the easiest card to place? Why?" "What was the most difficult card to place? Why?" and "Was it more difficult to decide if the scenario was an example of a push or pull or what change(s) in motion occurred? Why?"
- The materials provide teacher support for facilitating the sharing of students' finding solutions. For example, in the Scope for Classifying Objects, in Engineering Connection, students work in groups to design and create totem poles using texture as the grouping rule for each level. The

materials include a student handout to guide them through the process. Also, within the text of the landing page, the materials include guidance for the teacher on how to implement it. Students Define the Problem, Brainstorm, Plan, Build, Test, Redesign, and Share and Critique.

- The materials provide teacher support for facilitating the sharing of students' finding solutions. Materials provide feedback tips and examples teachers can use to support students throughout the learning cycle. For instance, in the Scope for Changes From Heat, the teacher asks students to discuss a picture of a melting crayon. They talk about what could make the crayon melt. Then students write or draw about a new color of crayon they could make by melting several together. If students are stuck, the teacher asks, "How could you make different colors of crayons?" Possible answers include blue and yellow could be melted together to make green.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 6.1

Materials include a variety of TEKS-aligned and developmentally appropriate assessment tools.

1	Materials include a range of diagnostic, formative, and summative assessments to assess student learning in a variety of formats.	M
2	Materials assess all student expectations over the breadth of the course and indicate which student expectations are being assessed in each assessment.	M
3	Materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts.	M
4	Materials include assessments that require students to apply knowledge and skills to novel contexts.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include a variety of TEKS-aligned and developmentally appropriate assessment tools.

Materials include a range of diagnostic, formative, and summative assessments to assess student learning in various formats. Materials assess all student expectations over the breadth of the course and indicate which student expectations are being assessed in each assessment. Materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts. Materials include assessments that require students to apply knowledge and skills to novel contexts.

Evidence includes but is not limited to:

Materials include a range of diagnostic, formative, and summative assessments to assess student learning in a variety of formats.

- Materials include diagnostic assessments for measuring student learning and identifying learning gains in various formats. For example, in the scope for Interdependency, Lesson 1: My Survival, during Accessing Prior Knowledge, the teacher can pre-assess a student's prior knowledge before entering grade-level learning. During this activity, students observe a video of an aquarium to determine how the animal's basic needs are met.
- Materials include formative assessments in various formats to measure student learning and determine the next steps for instruction. For example, in the Scope for Plant and Animal Structures, each lesson ends with an opportunity for students to show what they know during the Wrap-Up as they complete a sheet for their Interactive Science Notebook to respond to a prompt about what they have learned. In Lesson 1, students draw an animal using an arrow to indicate an external structure and describe how it helps the animal. In Lesson 2, students choose an animal from different categories and circle the body part that helps the animal move. In Lesson 3, students draw an animal, circle the eyes and ears, and complete a sentence stem that describes how eyes and ears help the animal survive. In Lesson 4, students draw an animal, label its coverings, and complete a sentence stem that describes how the coverings help

the animal survive. In Lesson 5, students identify the difference between the teeth of three animals and match each with the food they can eat. In Lesson 6, students write two sentences describing how the bugs they made during the lesson were similar to the parents. In Lesson 7, the students draw the parent and young and list their common structures. In Lesson 8, students complete the Claim-Evidence-Reasoning and Writing Science activities.

- Materials include diagnostic assessments for measuring student learning and identifying learning gains in various formats, including formative and summative assessments. For example, there is a written beginning and end-of-year review that students take independently. These tests address questions that cover a majority of the standards. In addition, there are data sheets for teachers to record responses made by students. These are based on the TEKS and are written as "I can " statements such as "I can tell that seasons repeat in a pattern."

Materials assess all student expectations over the breadth of the course and indicate which student expectations are being assessed in each assessment.

- The materials assess all student expectations by grade level, as outlined in the TEKS. For example, the materials include TEKS-aligned assessments that align the curriculum standards and student expectations and are designed to measure student understanding and mastery of the concepts and skills taught in the materials. The Standards Matrix indicates which TEKS are taught and assessed in each Scope.
- The materials indicate which student expectations are assessed. For example, on the landing page for each Scope, Standards Overview lists the TEKS taught and evaluated in the scope. Students' Learning Objectives state what students should be able to do by the end of the scope. The suggested Scope Calendar provides a list of assessment opportunities in each lesson.
- Materials assess all students' expectations. The lessons include detailed TEKS-based plans that include a way to teach each standard. They guide how to access student learning. For example, the scope for Pushes and Pulls starts by naming standards and then lists student learning objectives that mirror the standards.
- The materials do indicate which student SEs to assess. There is a data sheet at the end of each Scope. This sheet has “I Can” statements with TEKS listed by each statement. For example, the scope for Animal Structure has “I can” statements such as “I can Identify the external structure of specific animals.”

Materials include assessments that integrate scientific concepts and science and engineering practices with recurring themes and concepts.

- The materials include assessments requiring students to integrate scientific knowledge and science and engineering practices with recurrent themes appropriate to the student expectation. In the scope for Animal Life Cycles, Lesson 2: Mammal Life Cycle, the materials assess students’ knowledge of animal life cycles by having them write the life cycle stages of an elephant in their Interactive Science Notebooks. The recurring theme of patterns is integrated by identifying the phases of the elephant's life cycle in this activity. Scientific and engineering practices of communicating explanations are also included as students draw their favorite mammal's life cycle.
- The materials assess all student expectations by grade level, as outlined in the TEKS. For example, in the Scope for Animal Structures, the Claim-Evidence-Reasoning activity assesses the life cycle of a lima bean plant while integrating the recurring theme of structures and functions

and scientific and engineering practices of analyzing and interpreting data and communicating explanations.

- The materials include assessments integrating scientific concepts and science and engineering practices. Each Scope has a Claim-Evidence-Reasoning assessment. The Animal Structure Scope asks the students to construct and support an argument that shows how the external structure of an animal helps it move around and meet basic survival needs in its habitat. Based on the answer, the student might work in a small group with the teacher or work on Additional Resources elements.
- Materials include assessments with recurring themes and concepts. The RTC Cards are the same for K-2. Each card has a standard listed and questions to help students explore and make connections between concepts. For example, "Describe the properties of objects in terms of relative size and relative quantity." Questions on this card include: "How long is it?" "How heavy is it?" "Which is longer/shorter?" "Which is heavier/ lighter?" There is a section for teacher notes so teachers can assess if students have mastered them.

Materials include assessments that require students to apply knowledge and skills to novel contexts.

- Materials include assessments that require students to apply knowledge and skills to a new phenomenon or problem. For example, in the Scope for Interdependency, Lesson 8: Aquariums and Terrariums, students listen to the book *Aquariums and Terrariums,* discuss food chains, and learn how to make a miniature environment for a food chain in an aquarium or a terrarium. While reading the story, the teacher asks students, "What is something that Hanan might observe at the pond?" "What food chain might Eli and Hanan find?" "Would Tasmine's food chain work?" "Do you think that the different ecosystems will give different results?" "What should they include in the terrarium?" and "Where could we go to look at how living and nonliving things depend on each other at school or home?" This discussion assesses students' ability to apply their knowledge of interdependency in a food chain.
- Materials include assessments that require students to apply knowledge and skills to a new phenomenon or problem. For example, in the Scope for Animal Life Cycles, in the Writing Science activity, students analyze the picture of different stages of a chicken in the image to describe what they think the baby chicks will look like when they are grown and how they know. This activity assesses students' knowledge of animal life cycles.
- Materials include assessments that require students to apply knowledge and skills to a new phenomenon or problem. For example, in the Scope for Weather, students look at different pictures and then describe weather events. The students classify the images while working with a partner according to the conditions such as rain, hail, and wind. Then students are assessed by describing and recording observable characteristics of weather.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 6.2

Materials include guidance that explains how to analyze and respond to data from assessment tools.

1	Materials include information and/or resources that provide guidance for evaluating student responses.	M
2	Materials support teachers' analysis of assessment data with guidance and direction to respond to individual students' needs, in all areas of science, based on measures of student progress appropriate for the developmental level.	M
3	Assessment tools yield relevant information for teachers to use when planning instruction, intervention, and extension.	M
4	Materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include guidance that explains how to analyze and respond to data from assessment tools.

Materials include information and/or resources that provide guidance for evaluating student responses. Materials support teachers' analysis of assessment data with guidance and direction to respond to individual student's needs, in all areas of science, based on measures of student progress appropriate for the developmental level. Assessment tools yield relevant information for teachers to use when planning instruction, intervention, and extension. Materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data.

Evidence includes but is not limited to:

Materials include information and/or resources that provide guidance for evaluating student responses.

- Materials include information that guides teachers in evaluating student responses. Materials guide teachers to look for specific components when evaluating student responses. For example, the Scope for Interdependency provides teachers with questions before, during, and after Lesson 3: All About Terrariums. Before the lesson, the teacher asks, "What nonliving things do living things need to survive?" Since this question occurs before the lesson begins, the teacher accepts any answers that may vary from students. During the lesson, the teacher asks, "What things in the picture of a terrarium are living?" Students should respond with *plants and moss.* Teachers also ask, "What things in the picture of a terrarium are nonliving?" as students engage in the investigation. The materials suggest that students should respond with *soil, rocks,* and *water.* After the lesson in the Wrap-up activity, the teacher asks students to identify the living and nonliving things in a terrarium. Students should identify frogs, flies, and plants as living things and water, soil, and rocks as nonliving.
- Materials include resources that guide teachers in evaluating student responses as they write scientific explanations. Materials provide a generalized rubric teachers can use to evaluate whether students are rated as 2, 1, or 0 for each component of the explanation. This rubric can be used within any Claim-Evidence-Reasoning activity. The rubric defines the criteria for each

component. For example, students are rated as a 2 if they make a claim and draw and write accurate pieces of evidence. Students are a 1 if they make an inaccurate claim and draw or write an accurate piece of evidence. Students are a 0 if they did not make a claim and did not draw or write accurate pieces of evidence.

- Materials include information for teachers to evaluate students' responses. There is a Checking For Understanding Learning Pathways which has a flow chart explaining to teachers a path a student can take after completing an assessment. For example, if a student is successful on an assessment, the acceleration might include a choice board. If the students require intervention, small group resources are available. The teacher is directed to the available resources on this flow chart.

Materials support teachers' analysis of assessment data with guidance and direction to respond to individual students' needs, in all areas of science, based on measures of student progress appropriate for the developmental level.

- The materials include assessment tools that yield data teachers can easily analyze and interpret. The materials provide guidance documents and resources to support teachers' analysis and interpretation of assessment data. For example, The Scope for Pushes and Pulls includes data sheets to analyze data by concepts mastered.
- The materials provide BOY and EOY assessments and answer keys for kindergarten, grade 1, and grade 2. Teachers can use this data to respond to individual student needs in all areas of science, based on measures of student progress appropriate for the developmental level.
- Materials provide guidance documents and resources to support teachers' analysis of assessment data. Each Scope K-2 has a data sheet at the end of the Scope. Materials provide guidance instructing teachers to evaluate the data responses and mark the level of mastery for each key concept.
- The materials include assessment tools that yield data teachers can easily analyze and interpret. The materials provide guidance documents and resources to support teachers' analysis and interpretation of assessment data. For example, The Scope for Properties of Objects includes data sheets to analyze data by concepts mastered.
- The materials provide BOY and EOY assessments and answer keys for kindergarten, grade 1, and grade 2. Teachers can use this data to respond to individual student needs in all areas of science, based on measures of student progress appropriate for the developmental level.
- Each Scope K-2 has a data sheet at the end of the Scope. Materials provide guidance instructing teachers to evaluate the data responses and mark the level of mastery for each key concept. The levels are novice, gaining proficiency, or expert.

Assessment tools yield relevant information for teachers to use when planning instruction, intervention, and extension.

- The materials guide the teacher to Identify the students who will need more practice to achieve mastery of the content and provide the teacher with tiered intervention strategies for each Scope. For example, students who are novice, gaining proficiency, or an expert can go to the math center.
- Materials provide the key concepts students should master by the end of the scope. The materials provide guidance for teachers on the next steps based on student performance on assessments. For example, in Animal Life Cycle, the materials state students should know 1) All

animals have a life cycle, 2) Birds have a life cycle with the following stages: egg, hatchling, chick, and adult, 3) Fish have a life cycle with the following stages: egg, fry, and adult, 4) Mammals have a life cycle with the following stages: embryo (growing in mother's womb), newly born, puppy, and adult. The materials explain that the teacher will identify the students who will need more practice to achieve mastery of the content and need to engage in additional learning/practice.

- Assessment tools yield relevant information for teachers when planning instruction, intervention, and extension. The materials include an RTI chart explaining student success and related responses. For example, if 80% of students understand a concept, they would engage in the Scope phenomenon. The 10-15% of students needing reinforcement would meet with the teacher 30 minutes daily and use Picture Vocabulary. The 5-10% of students needing intervention would meet in a small group daily and use Guided Practice.

Materials provide a variety of resources and teacher guidance on how to leverage different activities to respond to student data.

- The materials provide a variety of student resources for teachers to use in responding to performance data. For example, in the Scope for Interdependency, the Small-Group Intervention tab includes Guided Practice and Active Practice for teachers to have students further practice the concepts in the scope as needed.
- The materials provide resources and guidance for teachers to respond to performance data. Teachers may use the K-2 Differentiated Pathway document to determine students' next steps as they develop understanding within a scope.
- Each scope contains one small-group intervention activity. Each activity breaks down into guided and active practice sections. These intervention lessons include a key concept, such as "a push or pull can cause an object to start moving." Each lesson guides the teacher to lead students through an activity and questioning. After the lesson, there is additional Tiered Intervention Support teachers can use with students who need more practice. For example, in the Scope for Classifying Objects, there is a Small Group Intervention tab that includes tiered intervention strategies for teachers to use with students. Tier 1 has the student's separate cards face down into two groups. There are two piles, one for vocabulary words and one for definitions. The object is to match the card to the definition. Tier 2 includes half the vocabulary terms and definitions. Students take turns matching them.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 6.3

Assessments are clear and easy to understand.

1	Assessments contain items that are scientifically accurate, avoid bias, and are free from errors.	M
2	Assessment tools use clear pictures and graphics that are developmentally appropriate.	M
3	Materials provide guidance to ensure consistent and accurate administration of assessment tools.	M
4	Materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Assessments are clear and easy to understand.

Assessments contain items that are scientifically accurate, avoid bias, and are free from errors. Assessment tools use clear pictures and graphics that are developmentally appropriate. Materials provide guidance to ensure consistent and accurate administration of assessment tools. Materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals.

Evidence includes but is not limited to:

Assessments contain items that are scientifically accurate, avoid bias, and are free from errors.

- Assessments contain items for the grade level that are scientifically accurate. For the Scope for Interdependency, Lesson 4: Interdependency in Aquariums, in the Wrap-up Interactive Science Notebook activity, students cut and paste pictures to show interdependence in an aquarium. The answer key shows the Sun provides sunlight to the fish, the plant provides oxygen and food to the fish, the rocks provide shelter to the fish, and the water provides water to the fish.
- Assessments contain items for the grade level that are scientifically accurate. For example, the assessment in the Living and Nonliving Scope accurately asks students to write an explanation for why nonliving things do not need food, water, and air and do not produce young. This is after a study of needs stating that living things need food, water, and air.
- Assessments contain items for the grade level or course that avoid bias. For example, in the Scope for Animal Structures, Lesson 5: I Need Food! The character pictured on the handout has a cochlear implant.
- Assessments contain items for the grade level or course that avoid bias. For example, in the Scope assessment on Living and Nonliving, there are assessment scenarios that include names from different cultures, such as Migual and Javi.

Accelerate Learning STEMscopes Science TX Grade 1

Assessment tools use clear pictures and graphics that are developmentally appropriate.

- Assessment tools use clear pictures and graphics. For example, in the Scope for Interdependency, in the Claim-Evidence-Reasoning activity, there is an illustration of a food chain that illustrates the flow of energy represented by arrows.
- Assessments contain pictures and graphics that are developmentally appropriate. For example, in the Scope for Animal Life Cycle, Lesson 4: What a Fish Story!, Interactive Science Notebook activity, students are expected to cut, glue, and label the salmon's life cycle in order. The pictures are developmentally appropriate because they show only four stages of the salmon's life and are clear, real-life pictures of each stage.
- The assessments use clear pictures that are developmentally appropriate. For example, in the grade 1 BOY assessment, the pictures are large and clearly labeled. A tomato plant is shown with leaves, stems, roots, and a tomato. The picture is black and white on a white background and easy to see.

Materials provide guidance to ensure consistent and accurate administration of assessment tools.

- Materials provide clear guidance for teachers to consistently and accurately administer assessment tools. The Scope for Plant Life Cycles, Lesson 3: Sweet Seedlings, instructs teachers to implement the Wrap-Up activity. It states what teachers need for Preparation, the Activity, and what students will do on the Interactive Science Notebook page. It is suggested the activity take 5 minutes to complete while providing a script for teachers to scaffold the Wrap-Up activity.
- The materials include detailed information that supports the teacher's understanding of assessment tools and their scoring procedures. For example, the Scope for Animal Structures, for Writing Science, provides an answer key. The expected student responses are: One way they are alike is both are the same color. One way they are different is one horse is big, and one is small. The baby horse is not as muscular as the adult horse. The baby horse has a white foot.
- There is guidance for accurate administration of the assessment tools. For each Scope, there is a CER assessment with a teacher script. The script gives step-by-step directions for how to administer the assessment. For example, in the Scope for Living and Nonliving, the teacher is directed to read a scenario. Then, students pick what is living and nonliving, such as a quarter or an owl. If students struggle, the materials direct the teacher to remind students of the story she read and talk about what was living in the story. The end of the assessment states that the results of this will indicate what students do next. They will be placed into an intervention group or use materials for acceleration if needed.

Materials include guidance to offer accommodations for assessment tools that allow students to demonstrate mastery of knowledge and skills aligned to learning goals.

- The materials include guidance that allows students to demonstrate mastery of knowledge and skills aligned to learning goals. Materials include BOY and EOY assessments that are aligned with the scopes studied. They also include a chart with answers to show which standard was tested.
- The materials include guidance to offer accommodations for assessment tools so that students of all abilities can demonstrate mastery of learning goals. For example, assessment guidance states, "For students needing accommodations during evaluation, you can simplify the questions and simplify rubrics. For additional student support, consider pulling struggling students 1:1 and administering the assessments orally, making notes on the assessment." Additionally, materials

offer suggestions to get students started with answering CER assessment questions if they are struggling.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 7.1

Materials include guidance, scaffolds, supports, and extensions that maximize student learning potential.

1	Materials provide recommended targeted instruction and activities to scaffold learning for students who have yet to achieve grade-level mastery.	M
2	Materials provide enrichment activities for all levels of learners.	M
3	Materials provide scaffolds and guidance for just-in-time learning acceleration for all students.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include guidance, scaffolds, supports, and extensions that maximize student learning potential.

Materials provide recommended targeted instruction and activities to scaffold learning for students who have yet to achieve grade-level mastery. Materials provide enrichment activities for all levels of learners. Materials provide scaffolds and guidance for just-in-time learning acceleration for all students.

Evidence includes but is not limited to:

Materials provide recommended targeted instruction and activities to scaffold learning for students who have yet to achieve grade level mastery.

- The materials provide targeted instruction for students who have not mastered the concept. For example, in the Scope for Pushes and Pulls, in Small-Group Intervention, there is a Guided Practice where students review push and pull through a small-group activity led by the classroom teacher. Then in Active Practice, students play a call-and-response game of “When I Say, You Say Chants” to practice scope concepts and uses. The materials include Tiered Intervention strategies with Active Practice. In Tier 1, students repeat the call-response chant several times before adding the call-and-response for a new term. In Tier 2, the materials provide a chart with all the terms and responses projected or hung in the classroom for students to refer to and read if they forget an answer. In Tier 3, there is a limit to the number of calls and responses chanted in a row; gradually add new terms as the student’s responses become more habitual. Additionally, there is a Concept Attainment Quiz to reassess for mastery.
- The materials provide targeted instruction for students who have not mastered the concept. For example, in the Scope for Animal Structures, in Small-Group Intervention, there is a Guided Practice where students review animal structures through a small-group activity led by the classroom teacher. Then in the Active Practice, students play a Concentration game to practice scope concepts and vocabulary. There are also Tiered Intervention strategies with Active Practice. In Tier 1, the student group members place the cards face down in two separate groups: one for the vocabulary terms and one for the definitions. The teacher instructs students to turn over a card from one group and look for its match in the second group. In Tier 2, the game begins with half of the vocabulary terms and their matching definitions. When students make all matches, the students place the remaining cards facedown on the table. In Tier 3,

group members place the cards face down in two separate groups: one for the vocabulary terms and one for the definitions. Unmatched cards to remain face up. After completing a round, the game repeats, and only the unmatched cards from the vocabulary terms pile remain faceup. There is a Concept Attainment Quiz to reassess for mastery.

- Materials provide activities and instruction for supporting students who still need mastery. For example, in the Scope on Animal Life Cycles, the teacher reviews the characteristics of life cycles through small group instruction by Tier. Students use printed cards to recreate the life cycle of a chicken. In Tier 1, students who still need to achieve mastery create the life cycle by drawing a card with an explanation of where it belongs in the life cycle. In Tier 2, students refer to reference material as they do the same activity with the life cycle. In Tier 3, students brainstorm with a partner to complete the activity.
- The materials include teacher guidance and resources for supporting students who have yet to reach mastery using Picture Vocabulary Cards. For example, the Scope on Seasons includes cards with words like spring, summer, fall, winter, and nature to support science vocabulary development.

Materials provide enrichment activities for all levels of learners.

- The materials provide enrichment activities for all levels of learners. For example, the materials guide Centers that provide cross-curricular connections while applying grade-level science knowledge. Centers include Literacy, Math, Writing, Science, Technology, and Science Art. In the Scope for Classifying Objects, the Math Center guidance consists of an activity where students classify and sort two-dimensional shapes.
- The materials provide enrichment activities for all levels of learners. For example, in the Engineering Connection section, an engineering challenge offers an opportunity for students to apply grade-level science knowledge. In the Scope for Seasons, students focus on the first five steps of the Engineering Design Process (defining the problem, brainstorming, planning, building, and testing) to design and construct old-fashioned, free-standing paper dolls that students can dress to reflect each season of the year.
- The materials provide enrichment strategies that can go with any content. The strategies, organized by grade band, allow students to apply their science knowledge in different ways. For example, the Word Web Strategy will enable students to connect vocabulary words on the web and explain why they connected the terms the way they did. Additionally, the Zooming In Strategy allows students to "zoom in" on a topic they are curious about. As students wonder about a topic, they invite others to explore it.

Materials provide scaffolds and guidance for just in time learning acceleration for all students.

- The materials provide just-in-time scaffolds and guidance to develop productive perseverance in learning for all students. For example, the teacher materials include Tiered Intervention Strategies to meet the varied needs of all students. In the Scope for Pushes and Pulls, in Small Group Intervention, materials give teachers strategies to engage all students based on performance as students engage in Active Practice.
- The materials provide support and resources for students ready to accelerate their learning. For example, the materials include project-based exploration for students. In the Scope for Weather, in Engineering Connection, the materials support the teacher in engaging students in an engineering challenge using the Engineering Design Process.

Accelerate Learning STEMscopes Science TX Grade 1

- The teacher materials include recommendations for just-in-time scaffolds and guidance to support struggling students. After completing the Claim, Evidence, and Reasoning in the Soil scope, the materials suggest asking students struggling to write a single sentence for the claim and drawing an observation for the evidence. Additionally, if the student needs more support, the materials include an intervention lesson where students examine topsoil, clay, and sand for texture and color. Then they play a concentration game with soil vocabulary terms such as texture, size, and shape.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 7.2

Materials include a variety of research-based instructional methods that appeal to various learning interests and needs.

1	Materials include a variety of developmentally appropriate instructional approaches to engage students in the mastery of the content.	M
2	Materials consistently support flexible grouping (e.g., whole group, small group, partners, one-on-one).	M
3	Materials consistently support multiple types of practices (e.g., modeled, guided, collaborative, independent) and provide guidance and structures to achieve effective implementation.	M
4	Materials represent diverse communities in the images and information about people and places.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include a variety of research-based instructional methods that appeal to a variety of learning interests and needs.

Materials include a variety of developmentally appropriate instructional approaches to engage students in the mastery of the content. Materials consistently support flexible grouping (e.g., whole group, small group, partners, one-on-one). Materials consistently support multiple types of practices (e.g., modeled, guided, collaborative, independent) and provide guidance and structures to achieve effective implementation. Materials represent diverse communities in the images and information about people and places.

Evidence includes but is not limited to:

Materials include a variety of developmentally appropriate instructional approaches to engage students in the mastery of the content.

- The materials engage students in the mastery of the content by offering a variety of developmentally appropriate instructional approaches. For example, lessons include authentic tasks in which students use tools to measure and collect data. In the Scope for Weather, Lesson 3: Was It the Wind? students use a straw to model and investigate different strengths of wind.
- The materials engage students in the mastery of the content by offering a variety of developmentally appropriate instructional approaches. For example, lessons include educational game-based learning opportunities where students apply scientific knowledge. In the Scope for Properties of Objects, students play the Ask, Ask, Switch game to practice scope concepts and vocabulary.
- The materials provide developmentally appropriate instructional approaches in the lesson structure. The lessons start by assessing background knowledge, move to the teacher modeling, and lastly, students practicing, for example, in the Scope for Soil. In lesson 1, students look at pictures of three different soil types and describe the texture. Then the teacher models by

showing different soils and describing the textures and colors of each. Lastly, students look at and describe actual soil samples.

Materials consistently support flexible grouping (e.g., whole group, small group, partners, one on one).

- The materials support flexible grouping. Each lesson includes an Engage, Explore, Explain routine for the group instruction. The materials also include teacher guidance and support for small group instruction. Flexible grouping is evident in support of emergent bilingual students in each lesson.
- The materials support a variety of instructional groupings. The authors designed each lesson on core content and concepts to be whole group instruction, including implementation instructions for teachers. For example, in the Scope for Animal Structures, eight lessons are provided to scaffold the learning of the concept and are for whole-group instruction. The lessons include activities where students work in small groups, with partners, and independently.
- The materials support a variety of instructional groupings. For example, in the Scope for Bodies of Water, Small-Group Intervention includes teacher guidance for Guided Practice and Active Practice for small-group or independent practice.
- Materials consistently support flexible grouping (e.g., whole group, small group, partners, one-on-one). For example, in the Scope for Classifying Objects, Guided Practice, students review classifying objects through a small-group activity led by the classroom teacher. Then in the Active Practice, students will play the Act It Out game to practice scope concepts and vocabulary.

Materials consistently support multiple types of practices (e.g., modeled, guided, collaborative, independent) and provide guidance and structures to achieve effective implementation.

- The materials support multiple types of practices through routines. Lessons begin with a whole group mini-lesson where the teacher models the activity. Then, students explore a concept with a partner as they collaborate, then work independently in their Interactive Science Notebook. The lessons include guidance to support the teacher in achieving effective implementation. For example, in the Scope on Seasons, the mini-lesson suggests that in a whole-group setting, the class discusses how Eli (a character from the Story Cards) dresses for particular weather. Then, student groups work collaboratively to sort weather cards, and lastly, students write independently about four types of weather.
- The materials provide multiple types of practice for students. In the Scope for Pushes and Pulls, Lesson 2: Push or Pull? the teacher engages students in a guided discussion to determine which given examples are a push or pull. Students then work collaboratively in pairs to review cards to determine which ones are pushes or pulls. Afterward, independently students decide if different actions are a push or a pull. The lesson provides step-by-step guidance and structures to the teacher for implementation.
- The materials provide multiple types of practices. In the Scope for Living and Nonliving, Lesson 3: What a Plant Needs, the teacher engages students in a guided discussion during an activity called Brown Bag Surprise to determine whether objects are living. Students then work collaboratively in pairs to determine what a plant needs to survive. Afterward, students independently determine how plants meet their basic needs. The lesson provides step-by-step guidance and structures to the teacher for implementation.

Accelerate Learning STEMscopes Science TX Grade 1

Materials represent diverse communities in the images and information about people and places.

- Materials represent diverse communities using images and information. For example, in the Scope for Classifying Objects, the Story Cards, the characters include one in a wheelchair and another with cochlear implants.
- Materials represent diverse communities using images and information. For example, the Scope for Seasons, the Active Reader, S*easons - Fun for All!* includes a picture of an older man with one leg and a cane sitting with a young child and another adult, a character in a wheelchair, and another character wearing glasses.
- The materials represent a diverse community using images of people and communities. The materials include pictures of animals, nature, objects, robots, and toys when covering science concepts. However, when pictures and illustrations have people, such as on the Scope on Soil, and Word Wall Cards, the images reflect the diversity of school communities. Characteristics vary in images to include race and ethnicity, skin tone, gender, age, disability status, body size and shape, and hair texture.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 7.3

Materials include listening, speaking, reading, and writing supports to assist emergent bilingual students in meeting grade-level science content expectations.

1	Materials include guidance for linguistic accommodations (communicated, sequenced, and scaffolded) commensurate with various levels of English language proficiency as defined by the ELPS.	M
2	Materials encourage strategic use of students' first language for linguistic, affective, cognitive, and academic development in English.	M

Meets | Score/2

The materials meet the criteria for this indicator. Materials include listening, speaking, reading, and writing supports to assist emergent bilingual students in meeting grade-level science content expectations.

Materials include guidance for linguistic accommodations (communicated, sequenced, and scaffolded) commensurate with various levels of English language proficiency as defined by the ELPS. Materials encourage strategic use of students' first language for linguistic, affective, cognitive, and academic development in English.

Evidence includes but is not limited to:

Materials include guidance for linguistic accommodations (communicated, sequenced, and scaffolded) commensurate with various levels of English language proficiency as defined by the ELPS.

- The materials include linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. In the Scope for Soil, Lessons 1-8 consist of a Differentiation section at the bottom. In this section, teachers find strategies to engage EB learners at beginner, intermediate, and advanced/advanced high proficiency levels. For example, in Lesson 8: The Garden Club Digs up the Dirt on Soil, the Strategy of Word Walls supports using accessible language in the learning process. For beginners, word walls include words and images provided by the teacher. For intermediate students, students create personalized word walls with high-frequency words. For advanced/advanced high students, students complete word walls with grade-level and complex vocabulary.
- Materials include linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPS. In the Scope for Natural Resources and Conservation, Lessons 1-8 include a Differentiation section at the bottom of the lesson. In this section, teachers can find strategies to engage EB learners at various proficiency levels, beginner, intermediate, and advanced/advanced high. For example, in Lesson 8: Right in My Backyard, the Strategy of Backwards Book Walk supports using accessible language in the learning process. For beginners, the teacher guides students to look at headings, illustrations, captions, and bolded or highlighted words using a book with simple text. For intermediate students, students share headings, images, captions, and bolded or highlighted words with teacher assistance as needed. For advanced/advanced high students, students use a more

complex book and discuss findings about illustrations, captions, and bolded or highlighted words in the book.

- The materials include linguistic accommodations commensurate with various levels of English language proficiency as defined by the ELPs. For example, the scopes have realia during investigations and lessons that can support EB students in connecting to their own lives as they make sense of new concepts. For example, students examine three soil types in the Scope for Soil. Additionally, the materials suggest concrete experiences as linguistic accommodations during direct instruction. For instance, in the same scope, students explore the texture, color, and size of three soil types.
- The materials provide EB proficiency levels at the end of each lesson, along with activities for each level, for beginning, intermediate, and advanced/advanced high students. For example, in the Scope for Changes from Heat, the materials encourage beginning students to use short phrases to describe heat using picture cards.

Materials encourage strategic use of students' first language for linguistic, affective, cognitive, and academic development in English.

- The materials encourage strategic use of students' first language as a means to academic development in English. For example, the Scope for Soil includes a Differentiation Strategy, Adapted Text in the Literacy Center. It suggests that beginners develop lists of academic vocabulary words in a native-language glossary. However, while the materials include strategies for teachers, there is no evidence of materials in any language other than English.
- The materials provide a "Learner Supports" document with English Language Support Strategies. The document includes strategies teachers can integrate into lessons to support students learning English as a second language. These categories include Learning, Listening, Speaking, Reading, and Writing. The document also contains details regarding how to implement the strategies with the materials based on the language proficiency level of students.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 7.4

Materials guide fostering connections between home and school.

1	Materials provide information for students and caregivers about the program's design.	M
2	Materials provide information for caregivers on how to help reinforce student learning and development.	M
3	Materials include information to guide teacher communications with caregivers.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials guide fostering connections between home and school.

Materials provide information for students and caregivers about the program's design. Materials provide information for caregivers on how they can help reinforce student learning and development. Materials include information to guide teacher communications with caregivers.

Evidence includes but is not limited to:

Materials provide information for students and caregivers about the program's design.

- The materials provide information to share with students and caregivers about the program's design. For example, the materials include a parent letter template to send home that provides additional information about the materials, curriculum philosophy, and key features of the program that can be modified *as* needed.
- The materials inform students and caregivers about the program's design. A parent welcome letter includes an explanation of the 5E model, the statement that each Scope follows the TEKS, and that creative inquiry is the basis for learning in the program.
- In the K-2 Scopes, the parent letter highlights vocabulary, content, and activities students experience in class and suggested activities at home. The letter includes login credentials to access the program, which features some always-available resources that students can use at home, including a Glossary and a reference resource called STEMscopedia.

Materials provide information to be shared with caregivers to help reinforce student learning and development.

- Materials provide information to share with students and caregivers about the program's design and how it allows caregivers to reinforce learning at home through questions and activities. For example, teachers can access a parent letter to send home upon scope completion in the Scope for Weather. The letter includes key concepts, what students did in class, vocabulary information, questions for parents to ask their children, and a tic-tac-toe board with activities for students to do to reinforce the science concepts at home.

- The materials include Information to share with caregivers to reinforce learning at home. There is a Home School Connection page for each Scope. This page contains a vocabulary content section and suggested activities students can do at home to help continue classroom learning.

Materials include information to guide teacher communications with caregivers.

- The materials include a parent letter in PDF format that explains materials taught with key concepts. However, other than sending home the letter, the materials do not guide communication with caregivers. Materials provide information to share with students and caregivers about the program's design. For example, the materials provide a parent letter to send home upon scope completion. The letter includes key concepts, what students did in class, vocabulary information, questions for parents to ask their children, and a tic-tac-toe board with activities for students to do to reinforce the science concepts at home.
- The materials include information to guide teacher communication with caregivers. The resources include a page entitled Help to introduce parents to STEMscopes. This page instructs teachers that the resources have a one-page parent letter available for download, briefly describing the curriculum philosophy and some of the scopes' features. It also states that the one-pager teachers can modify for distribution to parents and guardians of STEMscopes students.
- The materials include Student Data Sheets, allowing teachers to track or verify students' understanding and mastery of the standards with observational notes. Teachers can use these sheets to communicate student progress with the school or parents/caregivers. The data sheets include a detailed explanation of each level of mastery that allows the teacher to provide details about why a student is a novice, gaining proficiency, or an expert in each scope.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 8.1

Materials include year-long plans with practice and review opportunities that support instruction.

1	Materials are accompanied by a TEKS-aligned scope and sequence outlining the order in which knowledge and skills are taught and built in the course materials.	M
2	Materials provide clear teacher guidance for facilitating student-made connections across core concepts, scientific and engineering practices, and recurring themes and concepts.	M
3	Materials provide review and practice of knowledge and skills spiraled throughout the year to support mastery and retention.	PM

Partial Meets | Score 1/2

The materials partially meet the criteria for this indicator. Materials partially include year-long plans with practice and review opportunities that support instruction.

Materials are accompanied by a TEKS-aligned scope and sequence outlining the order in which knowledge and skills are taught and built in the course materials. Materials provide clear teacher guidance for facilitating student-made connections across core concepts, scientific and engineering practices, and recurring themes and concepts. Materials provide limited review and practice of knowledge and skills spiraled throughout the year to support mastery and retention.

Evidence includes but is not limited to:

Materials are accompanied by a TEKS aligned scope and sequence outlining the order in which knowledge and skills are taught and built in the course materials.

- The materials include a TEKS-aligned scope and sequence that outlines the order in which knowledge and skills are taught. Under the Resources tab, the Planning with STEMscopes subtab provides teachers with a suggested scope order and pacing guide (by scope name), an outline of the Texas Essential Knowledge and Skills (TEKS) for each scope, and suggested pacing by instructional day.
- Teacher materials include a Standards Planning section within the Scopes tab, where the concepts and TEKS are listed in the order in which they are taught. While there is a suggested order of the scopes with the aligned TEKS, the materials state that "...the order of scopes in *STEMscopes* is suggested but not required; scope and sequence can be adjusted to fit the needs of the individual campuses and districts."

Materials provide clear teacher guidance for facilitating student made connections across core concepts, scientific and engineering practices, and recurring themes and concepts.

- Teacher materials include a Standards Planning section that details the TEKS that are addressed in the lessons, including core concepts, scientific and engineering (SEPs) practices, and recurring themes and concepts (RTCs).
- Teacher guidance includes discussion prompts to help teachers facilitate student-made connections in all lessons for each scope.

Accelerate Learning STEMscopes Science TX Grade 1

Materials provide review and practice of knowledge and skills spiraled throughout the year to support mastery and retention.

- Materials suggest that teachers may choose to teach, or use, some parts of a module during the initial instruction and save other parts from assigning any time throughout the year. While this implies that materials provide review and practice of knowledge and skills throughout the year, materials provide limited guidance on spiraling throughout the year to support mastery and retention.
- For example, the materials suggest that during a scope, teachers use the Science Center to allow students to practice recently learned content; however, the guidance is unclear on how to address this within the Science Center. The materials sporadically provide review and practice of knowledge and skills throughout the year to support mastery and retention.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 8.2

Materials include classroom implementation support for teachers and administrators.

1	Materials provide teacher guidance and recommendations for the use of all materials, which include: text, embedded technology, enrichment activities, research-based instructional strategies, and scaffolds to support and enhance student learning.	M
2	Materials have standard correlations, including cross-content standards, that explain the standards within the context of the grade level.	M
3	Materials include a comprehensive list of all equipment and supplies needed to support instructional activities.	M
4	Materials include guidance for safety practices, including the grade-appropriate use of safety equipment during investigations.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials include classroom implementation support for teachers and administrators.

Materials provide teacher guidance and recommendations for the use of all materials, which include: text, embedded technology, enrichment activities, research-based instructional strategies, and scaffolds to support and enhance student learning. Materials have standard correlations, including cross-content standards, that explain the standards within the context of the grade level. Materials include a comprehensive list of all equipment and supplies needed to support instructional activities. Materials include guidance for safety practices, including the grade-appropriate use of safety equipment during investigations.

Evidence includes but is not limited to:

Materials provide teacher guidance and recommendations for the use of all materials, which include: text, embedded technology, enrichment activities, research based instructional strategies, and scaffolds to support and enhance student learning.

- Materials include teacher guidance for embedding technology in the “Centers” component. Teacher guidance and recommendations for using included texts are located throughout the components of each scope.
- Research-based instructional strategies are supported throughout the lessons as they are designed for inquiry-based instruction using the 5E instructional model. Scaffolds to support and enhance learning and implement enrichment activities are available in the “Advanced Strategies” and “Intervention” tabs.
- Materials include scopes with multiple lessons to address the development of a concept over time. The Intervention tab in each scope includes teacher guidance for providing a small group lesson to provide additional instruction for students struggling with the concept.
- The “Advanced Strategies” section under the Resources tab includes instructional strategies with descriptions of how to implement these strategies to enrich student learning.

Accelerate Learning STEMscopes Science TX Grade 1

Materials have standard correlations, including cross content standards, that explain the standards within the context of the grade level.

- The Standards Planning tab in each scope includes a list of the Texas Essential Knowledge and Skills (TEKS), Scientific and Engineering Practices (SEPs), and Recurring Themes and Concepts (RTCs). Information is provided about cross-content standards that are addressed and where they are addressed within the scope.
- The materials include TEKS for cross-curricular connections in the Standards Planning section of each scope.
- Teacher materials include guides in each scope that explain student expectations for the content TEKS.

Materials include a comprehensive list of all equipment and supplies needed to support instructional activities.

- The “Planning with STEMScopes” section includes the STEMScopes K-5 Texas Science Materials List. There is a comprehensive materials list for Grade 1. The list includes the overall topic, the scope name, the lesson plan number, the name and quantity of the materials needed, whether the materials are per student, group, or class, whether the materials come in the kit or should be supplied by the school, and whether the materials are consumable or can be reused.
- The STEMScopes Kits List lists materials needed to implement the investigations referenced in the lessons in each scope.

Materials include guidance for safety practices, including the grade appropriate use of safety equipment during investigations.

- Teacher guidance for safety practices is under the Resources tab and includes “Lab Safety Information”, five Safety Posters K-2, a Safety Equipment PowerPoint, and a Safety Contract.
- The five Safety Posters include grade-appropriate pictures and rules for safe practices, including using safety equipment during investigations. For example, one poster has a bear wearing safety goggles.
- Teacher guidance for safety practices is addressed as needed within lessons included in the scopes.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 8.3

Materials provide implementation guidance to meet variability in program design and scheduling.

1	Materials support scheduling considerations and include guidance and recommendations on required time for lessons and activities.	M
2	Materials guide strategic implementation without disrupting the sequence of content that must be taught in a specific order following a developmental progression.	M
3	Materials designated for the course are flexible and can be completed in one school year.	M

Meets | Score 2/2

The materials meet the criteria for this indicator. Materials provide implementation guidance to meet variability in program design and scheduling.

Materials support scheduling considerations and include guidance and recommendations on required time for lessons and activities. Materials guide strategic implementation without disrupting the sequence of content that must be taught in a specific order following a developmental progression. Materials designated for the course are flexible and can be completed in one school year.

Evidence includes but is not limited to:

Materials support scheduling considerations and include guidance and recommendations on required time for lessons and activities.

- Teacher materials include a K-2 Science Suggested Scope and Sequence that includes a list of the grade 1 scopes, the aligned Texas Essential Knowledge and Skills (TEKS), along with the suggested pacing of instruction days. A note for teachers suggests that the order of the Scopes of STEMscopes is suggested but not required. The scope and sequence can be adjusted to fit the needs of individual campuses and districts.
- Materials include recommendations for the required time for lessons and activities. For example, Lesson 4 includes the following scheduling considerations: Circle Time- 5 minutes; Mini Lesson- 15 minutes; Wrap Up- 5 minutes; Word Wall with Wallace the Wordy Walrus- 5 minutes.

Materials guide strategic implementation without disrupting the sequence of content that must be taught in a specific order following a developmental progression.

- Teacher guidance in the Development and Delivery of the 5E+IA STEMscopes Science Curriculum Model includes a sequenced pathway and resources and support for meeting the needs of all students in all K-12 science classrooms.
- The K-2 Suggested Scope and Sequence includes a note that states the order of scopes is suggested but not required and can be added to the instructional time based on class time options.
- The materials include a TEKS and Topic Sequence that shows the order of instruction from least complex to most complex. For example, in grade 1, students classify objects is taught before they apply the same skill with types of soil.

Accelerate Learning STEMscopes Science TX Grade 1

Materials designated for the course are flexible and can be completed in one school year.

- The Lesson Planning Guide includes the required time for lessons and activities. Each scope includes the following teacher guidance, "This schedule assumes there is a 35-minute period for science instruction each day. If 35 minutes of science instruction is not feasible, lessons and activities are designed with the flexibility to allow for cross-curricular integration with other subject areas."
- The Suggested Scope Order and Pacing Guide includes the Suggested Scope and Sequence for Concepts that helps the teacher plan instruction within a number of suggested days, which is provided by the pacing guide. If the teacher follows the suggested number of days, they can teach all content for the designated grade level in one year.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 9.1

The visual design of materials is clear and easy to understand.

1	Materials include an appropriate amount of white space and a design that supports and does not distract from student learning.	Yes
2	Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting.	Yes
3	Materials include digital components that are free of technical errors.	Yes

Not Scored

The visual design of materials is clear and easy to understand.

Materials include an appropriate amount of white space and a design that supports and does not distract from student learning. Materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. Materials include digital components that are free of technical errors.

Evidence includes but is not limited to:

Materials include an appropriate amount of white space and a design that supports and does not distract from student learning.

- The digital materials include an appropriate amount of white space and an overall design that does not distract from student learning. For example, in the Scope for Animal Structures, Lesson 1: What Do I See?, the student handout for the Interactive Science Notebook-Student Handout has a clear main subject, topic, or purpose, title and heading are prominent and clear; sections are marked with subheadings, the subheadings have a clear, relevant hierarchy, and the content is organized in a logical progression.
- Teacher guidance materials are appropriately designed with clear, designated places for important information. Teacher guidance documents, located on the main landing page for each Scope, are designed so that teachers can locate important information easily for planning and implementation.
- The materials have an appropriate amount of white space and a design that is not distracting. For example, the Scope for Living and NonLiving has a graphic organizer with a clear title, appropriate margins, and space between words such as *rock, pet*, and *plant*.

Materials embed age appropriate pictures and graphics that support student learning and engagement without being visually distracting.

- The materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. For example, the Scope for Interdependence includes vocabulary cards with clear and authentic images and graphics to define and support the new words students are learning.

- The materials embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. For example, in the Scope for Animal Life Cycles, the Interactive Story Cards used for each lesson include age-appropriate pictures and graphics that support student learning and engagement.
- The pictures in the materials are age-appropriate and not distracting. For example, in the Scope on Living and Nonliving, the graphic sheet on Basic Needs for Plants is free of error and has pictures of a pencil in hand to indicate where the student should write. There is also a picture of an animated owl to make the page colorful.
- The Scope for Classifying Objects includes Safety Posters K-2 that embed age-appropriate pictures and graphics that support student learning and engagement without being visually distracting. The K-2 posters include an image in the middle and the lab safety rule on the top in bold. Under the picture is the rule in a single sentence.
- The Scope for Changes from Heat includes an Active Reader, Hot Stuff!, that includes age-appropriate and clear images and graphics that support student learning and engagement without being visually distracting. For example, the student action instructions include graphics like a circle when students are to circle something and a hand holding a pencil when students should write or draw.

Materials include digital components that are free of technical errors.

- The materials include digital components that are free of technical errors. In each scope, the teacher resources are free of spelling, grammar, and punctuation errors, inaccurate content materials or information, and materials are free of wrong answer sheets to problems.
- The materials include digital components that are free of technical errors. In each scope, the student materials are free of spelling, grammar, and punctuation errors, inaccurate content or information, and materials free of wrong answer sheets to problems.
- Materials are free of digital technical errors. Each Scope includes a video that is clear and error-free. The student handouts and graphic organizers are free from spelling and grammar errors. For example, in the Scope on Living and NonLiving, the pictures of plants are clear, and the words in boxes are spelled correctly and are marked to be cut out on a dotted line.
- The materials include digital components that are free of technical errors. Students can select the option of reading the virtual Active Reader online or using the text-to-speech feature. The materials are free of spelling, grammar, and punctuation errors.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 9.2

Materials are intentionally designed to engage and support student learning with the integration of digital technology.

1	Materials integrate digital technology and tools that support student learning and engagement.	Yes
2	Materials integrate digital technology in ways that support student engagement with the science and engineering practices, recurring themes and concepts, and grade-level content.	Yes
3	Materials integrate digital technology that provides opportunities for teachers and/or students to collaborate.	No
4	Materials integrate digital technology that is compatible with a variety of learning management systems.	Yes

Not Scored

Materials are intentionally designed to engage and support student learning with the integration of digital technology.

Materials integrate digital technology and tools that support student learning and engagement. Materials integrate digital technology in ways that support student engagement with the science and engineering practices, recurring themes and concepts, and grade-level content. Materials do not integrate digital technology that provides opportunities for teachers and/or students to collaborate. Materials integrate digital technology that is compatible with a variety of learning management systems.

Evidence includes but is not limited to:

Materials integrate digital technology and tools that support student learning and engagement.

- The materials integrate digital technology and tools that support student learning and engagement. Digital technology and tools enhance student learning through such features as learning games, interactives, simulations, and online assessments. For example, in the Scope for Animal Life Cycle, in the Technology Center, students will play an online game and watch the Science Rock video and Vocab Raps. During the interactive game, students determine which life cycle stage comes next based on the given picture. The game also serves as a check for understanding to evaluate student understanding of the concept.
- The materials provide teacher guidance for using simulations, interactives, and related activities to support student learning. For example, in the Scope for Interdependency, in the Technology Center, the materials include instructions for teachers to implement this activity with students. Students play an online game and watch the Science Rock video and Vocab Raps videos. During the interactive game, students determine what is needed in a terrarium for their new pet to survive. The game also serves as a check for understanding to evaluate student understanding of the concept.
- Materials integrate digital technology tools and support students' engagement with online games, Science Rock videos, and online assessments. For example, in the Scope for Living and Nonliving, students play a game by clicking on living or nonliving items in an outdoor scene, such

as a frog, pond, or deer. In addition, students write digitally about living and nonliving items they see in their classrooms.

Materials integrate digital technology in ways that support student engagement with the science and engineering practices, recurring themes and concepts, and grade level content.

- The materials integrate digital technology in ways that support student engagement with science and engineering practices, recurring themes and concepts, and grade-level content.
    - For example, in the Scope for Animal Structures, in the Technology Center, during the Let's Sing Activity, students watch the Science Rock Song video and draw and write about what plant or animal structure they think is most important. They also write a response to select a structure that would be hardest for the animal to live without and draw a picture to describe why it would be hard to live without it. Students engage in grade-level content about plant and animal structures. This activity also embeds recurring themes and concepts for Structures and Functions as students identify how animal structures function for their survival. Students also use scientific and engineering practices as they watch the Science Rock Song to collect evidence to respond to the two questions. They also explain by drawing and writing to respond to the questions.
    - For example, in the Scope for Animal Life Cycle, in the Technology Center, during the Let's Sing Activity, students watch the Science Rock Song, choose any animal, and draw a picture to describe how the animal changes from birth to adulthood, as well as write about the what is happening in the animal life cycle. Students engage in grade-level content about animal life cycles. This activity also embeds recurring themes and concepts for patterns as students identify the pattern of stages in the life cycle of an animal. Students are also expected to use scientific and engineering practices as they watch the Science Rock Song to collect evidence to respond to the two questions. They also explain by drawing and writing to respond to the questions.
    - For example, in the Scope for Living and Nonliving, students digitally click on living and nonliving items in a habitat. The student can click on items in a landscape. After clicking, they select living or nonliving. If the answer is incorrect, the student will hear a "That is not quite right, try again." message. If the student clicks on a deer and clicks nonliving, they will hear this message. Reoccurring themes such as cause and effect are present. Each "need "presented in the game is essential for survival. If the organism has needs met, it will survive.Students then draw and label living and nonliving things on their digital platform.

Materials integrate digital technology that provides opportunities for teachers and/or students to collaborate.

- The materials do integrate digital technology; however, it does not provide opportunities for teachers and/or students to collaborate. Digital technology included in the materials lacks components like discussion boards, video conferencing, and cyber spaces that would allow collaboration. Digital technology for student use lacks such components as platforms to post class discussions or enhance digital group projects.
- While the materials integrate digital technology in the form of learning games, these are not designed to be completed by interacting or collaborating with others.

Accelerate Learning STEMscopes Science TX Grade 1

Materials integrate digital technology that is compatible with a variety of learning management systems.

- Digital materials are accessible and compatible with multiple operating systems and devices. The information was provided in documents outside of the review in the Rubric Tool. For example, the materials provide single-sign-on ability via Clever, MS SAML, Google SSO, LTI SSO, ClassLink, and Schoology. We support integration with client LMS systems through IMS Global's Thin Common Cartridge (ThinCC) protocol.
- Digital materials are accessible and compatible with multiple operating systems and devices, including MacBook, Google Classroom, and Canvas.
- Materials provide Technical Roadmap K-12, which gives information about Rostering and Integration Options. Rostering can be done with OneRosterCSV, Classlink, Clever, Schoology, EdFi, and Skyward. LMS Integration can be done with Canvas, Schoology, Google Classroom, Safari Montage, and SRG. SSO can be done with Classlink, Clever, Schoology, Canvas, Ed-Fi, and SAML.

Accelerate Learning STEMscopes Science TX Grade 1

Indicator 9.3

Digital technology and online components are developmentally and grade-level appropriate and provide support for learning.

1	Digital technology and online components are developmentally appropriate for the grade level and align with the scope and approach to science knowledge and skills progression.	Yes
2	Materials provide teacher guidance for the use of embedded technology to support and enhance student learning.	Yes
3	Materials are available to parents and caregivers to support student engagement with digital technology and online components.	Yes

Not Scored

Digital technology and online components are developmentally and grade-level appropriate and provide support for learning.

Digital technology and online components are developmentally appropriate for the grade level and align with the scope and approach to science knowledge and skills progression. Materials provide teacher guidance for the use of embedded technology to support and enhance student learning. Materials are available to parents and caregivers to support student engagement with digital technology and online components.

Evidence includes but is not limited to:

Digital technology and online components are developmentally appropriate for the grade level and align with the scope and approach to science knowledge and skills progression.

- The digital technology and online components in the materials are developmentally appropriate for the grade level. For example, in the Scope for Interdependency, Lesson 4: Interdependency in Aquariums, in the Word Wall with Wallace the Wordy Walrus activity, students view the aquarium Vocabulary Card and watch the Aquarium Vocab Rap video to help students engage in learning about the vocabulary word through song.
- The digital technology and online components are aligned with the grade-level scope and approach to science knowledge and skills progression. For example, in the Scope for Animal Structures, at the end of lessons 1-8, there is a Word Wall with Wallace the Wordy Walrus activity that provides teachers instructions for implementing the activity that identifies new vocabulary and allows students to practice using it.
- The online components are developmentally appropriate and align with the scope and approach to science knowledge. For example, in K-2 Scopes, have videos in lessons to reinforce word wall words. Each video is an appropriate length. Most are about 1 minute and 20 seconds. In addition, each online component matches TEKS for that grade level. In the Scope for Living and Nonliving, the technology section of the lesson directs teachers to tell students to watch the Science Rock Video and write and tell about living and nonliving.
- Digital technology and online components are developmentally appropriate for the grade level and align with the scope and approach to science knowledge and skills progression. Scopes

include digital components with the interactive notebook that are directly correlated with what the scope was taught for the week.

Materials provide teacher guidance for the use of embedded technology to support and enhance student learning.

- Materials provide teacher guidance for the use of embedded technology to support and enhance student learning
    - Teacher guidance for using embedded technology with learning center activities includes a Preparation section with instructions for getting students logged into the website and navigating to the Technology Center for the Scope. It also includes an Activity section with instructions for guiding students to use the embedded technology to enhance learning.
    - The materials provide a guidance video for the Scope lesson format.

Materials are available to parents and caregivers to support student engagement with digital technology and online components.

- The materials provide parent letters for each Scope to support student engagement with the digital platform at home. This letter explains the program, its benefits, and its usage within the classroom. The parent letters state, "Your student will receive login credentials to access the program, which features some always-available resources that can be browsed at home, including a Glossary and a reference resource called STEMscopedia. Each of these STEMscopedia reading passages incorporates hands-on activities Additionally, rather than a traditional textbook, your student may come home with a variety of assignments, like reading passages, vocabulary exercises, and at-home hands-on lessons."